

Sequence Listing

<110> Desnoyers, Luc
Eaton, Dan L.
Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
Pan, James
Stewart, Timothy A.
Watanabe, Colin K.
Wood, William I.
Zhang, Zemin

<120> SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC ACIDS ENCODING THE SAME

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Gln Thr Gly Gly Leu Pro Pro Asp Cys Ser Lys Cys Cys His Gly
35 40 45
Asp Tyr Ser Phe Arg Gly Tyr Gln Gly Pro Pro Gly Pro Pro Gly
50 55 60
Pro Pro Gly Ile Pro Gly Asn His Gly Asn Asn Gly Asn Asn Gly
65 70 75
Ala Thr Gly His Glu Gly Ala Lys Gly Glu Lys Gly Asp Lys Gly
80 85 90
Asp Leu Gly Pro Arg Gly Glu Arg Gly Gln His Gly Pro Lys Gly
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Glu Lys Gly Tyr Pro Gly Ile Pro Pro Glu Leu Gln Ile Ala Phe
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Thr Phe Ser Met Met Lys His Glu Asp Val Glu Glu Val Tyr Val
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Tyr Leu Met His Asn Gly Asn Thr Val Phe Ser Met Tyr Ser Tyr
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Lys Leu Ala Lys Gly Asp Glu Val Trp Leu Arg Met Gly Asn Gly
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35 40 45
Ser Leu Pro Gly Phe Lys Glu Ile Val Ser Arg Gly Val Lys Val
50 55 60
Asp Tyr Leu Thr Pro Asp Phe Pro Ser Leu Ser Tyr Pro Asn Tyr
65 70 75
Tyr Thr Leu Met Thr Gly Arg His Cys Glu Val His Gln Met Ile
80 85 90
Gly Asn Tyr Met Trp Asp Pro Thr Thr Asn Lys Ser Phe Asp Ile
95 100 105
Gly Val Asn Lys Asp Ser Leu Met Pro Leu Trp Trp Asn Gly Ser

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Met Tyr Tyr Trp Pro Gly Cys Glu Val Glu Ile Leu Gly Val Arg		
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Pro Thr Tyr Cys Leu Glu Tyr Lys Asn Val Pro Thr Asp Ile Asn		
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Phe Ala Asn Ala Val Ser Asp Ala Leu Asp Ser Phe Lys Ser Gly		
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Gly His His Tyr Gly Pro Ala Ser Pro Gln Arg Lys Asp Ala Leu		
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Lys Ala Val Asp Thr Val Leu Lys Tyr Met Thr Lys Trp Ile Gln		
215	220	225
Glu Arg Gly Leu Gln Asp Arg Leu Asn Val Ile Ile Phe Ser Asp		
230	235	240
His Gly Met Thr Asp Ile Phe Trp Met Asp Lys Val Ile Glu Leu		
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Asn Lys Tyr Ile Ser Leu Asn Asp Leu Gln Gln Val Lys Asp Arg		
260	265	270
Gly Pro Val Val Ser Leu Trp Pro Ala Pro Gly Lys His Ser Glu		
275	280	285
Ile Tyr Asn Lys Leu Ser Thr Val Glu His Met Thr Val Tyr Glu		
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Lys Glu Ala Ile Pro Ser Arg Phe Tyr Tyr Lys Lys Gly Lys Phe		
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Val Ser Pro Leu Thr Leu Val Ala Asp Glu Gly Trp Phe Ile Thr		
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Glu Asn Arg Glu Met Leu Pro Phe Trp Met Asn Ser Thr Gly Arg		
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Arg Glu Gly Trp Gln Arg Gly Trp His Gly Tyr Asp Asn Glu Leu		
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Met Asp Met Arg Gly Ile Phe Leu Ala Phe Gly Pro Asp Phe Lys		
365	370	375
Ser Asn Phe Arg Ala Ala Pro Ile Arg Ser Val Asp Val Tyr Asn		
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Val Met Cys Asn Val Val Gly Ile Thr Pro Leu Pro Asn Asn Gly		
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Ser Trp Ser Arg Val Met Cys Met Leu Lys Gly Arg Ala Gly Thr
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35 40 45
Gln Ala Pro Pro His Leu Leu Ala Arg Gly Ala Lys Trp Gly Gln
50 55 60
Ala Leu Pro Val Ala Leu Val Ser Ser Leu Glu Ala Ala Ser His
65 70 75
Arg Gly Arg His Glu Arg Pro Ser Ala Thr Thr Gln Cys Pro Val
80 85 90
Leu Arg Pro Glu Glu Val Leu Glu Ala Asp Thr His Gln Arg Ser
95 100 105
Ile Ser Pro Trp Arg Tyr Arg Val Asp Thr Asp Glu Asp Arg Tyr
110 115 120
Pro Gln Lys Leu Ala Phe Ala Glu Cys Leu Cys Arg Gly Cys Ile
125 130 135
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140 145 150
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35 40 45
His Cys Val Thr Thr Ala Thr Arg Val Leu Ser Asn Thr Glu Asp
50 55 60
Leu Pro Leu Val Thr Lys Met Cys His Ile Gly Cys Pro Asp Ile
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Thr Ser Leu Cys Asn His Asp
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<210> 18
<211> 273
<212> PRT
<213> Homo Sapien

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20 25 30
Cys Phe Ala Asp Phe Lys His Pro Cys Tyr Lys Met Ala Tyr Phe
35 40 45
His Glu Leu Ser Ser Arg Val Ser Phe Gln Glu Ala Arg Leu Ala
50 55 60
Cys Glu Ser Glu Gly Gly Val Leu Leu Ser Leu Glu Asn Glu Ala
65 70 75
Glu Gln Lys Leu Ile Glu Ser Met Leu Gln Asn Leu Thr Lys Pro
80 85 90
Gly Thr Gly Ile Ser Asp Gly Asp Phe Trp Ile Gly Leu Trp Arg
95 100 105
Asn Gly Asp Gly Gln Thr Ser Gly Ala Cys Pro Asp Leu Tyr Gln
110 115 120
Trp Ser Asp Gly Ser Asn Ser Gln Tyr Arg Asn Trp Tyr Thr Asp
125 130 135
Glu Pro Ser Cys Gly Ser Glu Lys Cys Val Val Met Tyr His Gln
140 145 150
Pro Thr Ala Asn Pro Gly Leu Gly Gly Pro Tyr Leu Tyr Gln Trp
155 160 165
Asn Asp Asp Arg Cys Asn Met Lys His Asn Tyr Ile Cys Lys Tyr

170	175	180
Glu Pro Glu Ile Asn Pro Thr Ala Pro Val Glu Lys Pro Tyr Leu		
185	190	195
Thr Asn Gln Pro Gly Asp Thr His Gln Asn Val Val Val Thr Glu		
200	205	210
Ala Gly Ile Ile Pro Asn Leu Ile Tyr Val Val Ile Pro Thr Ile		
215	220	225
Pro Leu Leu Leu Leu Ile Leu Val Ala Phe Gly Thr Cys Cys Phe		
230	235	240
Gln Met Leu His Lys Ser Lys Gly Arg Thr Lys Thr Ser Pro Asn		
245	250	255
Gln Ser Thr Leu Trp Ile Ser Lys Ser Thr Arg Lys Glu Ser Gly		
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Met Glu Val

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<210> 19
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 19
caccaaccaa ctgccaatcc tggc 24

<210> 20
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 20
accacattct gatgggtgtc tcctgg 26

<210> 21
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 21
gggtccctac ctttaccagt ggaatgatga caggtgttaac atgaaggcac 49

<210> 22
<211> 3824

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<212> DNA

<213> Homo Sapien

<400> 22
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aataaatctt gctactgccc aaaa 3824

<210> 23
<211> 571
<212> PRT
<213> Homo Sapien

<400> 23
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Val Cys Leu Leu Leu Ala Cys Pro Ala Thr Ala Thr Gly Pro Glu
20 25 30
Val Ala Gln Pro Glu Val Asp Thr Thr Leu Gly Arg Val Arg Gly
35 40 45
Arg Gln Val Gly Val Lys Gly Thr Asp Arg Leu Val Asn Val Phe

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Leu	Gly	Ile	Pro	Phe	Ala	Gln	Pro	Pro	Leu	Gly	Pro	Asp	Arg	Phe
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65									70					
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80														
Ser	Thr	Ala	Pro	Pro	Met	Cys	Leu	Gln	Asp	Val	Glu	Ser	Met	Asn
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95														
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									115					120
110														
Ser	Glu	Asp	Cys	Leu	Val	Leu	Asn	Val	Tyr	Ser	Pro	Ala	Glu	Val
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125														
Pro	Ala	Gly	Ser	Gly	Arg	Pro	Val	Met	Val	Trp	Val	His	Gly	Gly
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155														
Ala	Ala	Tyr	Gly	Asp	Val	Val	Val	Val	Thr	Val	Gln	Tyr	Arg	Leu
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Asn	Gln	Gly	Phe	Leu	Asp	Val	Val	Ala	Ala	Leu	Arg	Trp	Val	Gln
									205					210
200														
Glu	Asn	Ile	Ala	Pro	Phe	Gly	Gly	Asp	Leu	Asn	Cys	Val	Thr	Val
									220					225
215														
Phe	Gly	Gly	Ser	Ala	Gly	Gly	Ser	Ile	Ile	Ser	Gly	Leu	Val	Leu
									235					240
230														
Ser	Pro	Val	Ala	Ala	Gly	Leu	Phe	His	Arg	Ala	Ile	Thr	Gln	Ser
									250					255
245														
Gly	Val	Ile	Thr	Thr	Pro	Gly	Ile	Ile	Asp	Ser	His	Pro	Trp	Pro
									265					270
260														
Leu	Ala	Gln	Lys	Ile	Ala	Asn	Thr	Leu	Ala	Cys	Ser	Ser	Ser	Ser
														285
275														
Pro	Ala	Glu	Met	Val	Gln	Cys	Leu	Gln	Gln	Lys	Glu	Gly	Glu	Glu
														300
290														
Leu	Val	Leu	Ser	Lys	Lys	Leu	Lys	Asn	Thr	Ile	Tyr	Pro	Leu	Thr
														315
305														
Val	Asp	Gly	Thr	Val	Phe	Pro	Lys	Ser	Pro	Lys	Glu	Leu	Leu	Lys
														330
320														
Glu	Lys	Pro	Phe	His	Ser	Val	Pro	Phe	Leu	Met	Gly	Val	Asn	Asn
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335														
340														

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<210> 24
<211> 22
<212> DNA
<213> Artificial Sequence
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<220>
<223> Synthetic oligonucleotide probe

<400> 24
qcaaagctct gcctccttgg cc 22

<210> 25
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 25
gggtggactg tgctctaattt gacgc 25

<210> 26
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
cgtggcactg ggttgatc 18

<210> 27
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 27
gatgcagttc tggtcagaga cgctcccaag caagatacaa cagtg 45

<210> 28
<211> 1342
<212> DNA
<213> Homo Sapien

<400> 28
catggagcct cttgcagctt acccgctaaa atgttccggg cccagagcaa 50
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cttctacaac taaaattcct caaacctaaa atcaacagct tttatgcctt 150
tgaagtgaag gatgcaaaag gaagaactgt ttctctggaa aagtataaag 200
gcaaagttc actagttgta aacgtggcca gtgactgccaa actcacagac 250
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tcactatgta tgtaactgac atatataat agtcatttat aaatgaccgt 1300
attataacat ttgaaaaagt cttcatcaaa aaaaaaaaaa aa 1342

<210> 29
<211> 209
<212> PRT
<213> Homo Sapien

<400> 29
Met Glu Pro Leu Ala Ala Tyr Pro Leu Lys Cys Ser Gly Pro Arg
1 5 10 15
Ala Lys Val Phe Ala Val Leu Leu Ser Ile Val Leu Cys Thr Val
20 25 30
Thr Leu Phe Leu Leu Gln Leu Lys Phe Leu Lys Pro Lys Ile Asn
35 40 45
Ser Phe Tyr Ala Phe Glu Val Lys Asp Ala Lys Gly Arg Thr Val
50 55 60
Ser Leu Glu Lys Tyr Lys Gly Lys Val Ser Leu Val Val Asn Val
65 70 75
Ala Ser Asp Cys Gln Leu Thr Asp Arg Asn Tyr Leu Gly Leu Lys
80 85 90

Glu	Leu	His	Lys	Glu	Phe	Gly	Pro	Ser	His	Phe	Ser	Val	Leu	Ala
														100
														105
Phe	Pro	Cys	Asn	Gln	Phe	Gly	Glu	Ser	Glu	Pro	Arg	Pro	Ser	Lys
														115
														120
Glu	Val	Glu	Ser	Phe	Ala	Arg	Lys	Asn	Tyr	Gly	Val	Thr	Phe	Pro
														130
														135
Ile	Phe	His	Lys	Ile	Lys	Ile	Leu	Gly	Ser	Glu	Gly	Glu	Pro	Ala
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Phe	Arg	Phe	Leu	Val	Asp	Ser	Ser	Lys	Lys	Glu	Pro	Arg	Trp	Asn
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Phe	Trp	Lys	Tyr	Leu	Val	Asn	Pro	Glu	Gly	Gln	Val	Val	Lys	Phe
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														180
Trp	Arg	Pro	Glu	Glu	Pro	Ile	Glu	Val	Ile	Arg	Pro	Asp	Ile	Ala
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														195
Ala	Leu	Val	Arg	Gln	Val	Ile	Ile	Lys	Lys	Lys	Glu	Asp	Leu	
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														205

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<210> 30
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 30
atcctccaaatggagccttttgc 24

<210> 31
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 31
gtatcttgatccaccctgagg 20

<210> 32
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 32
taaccagagcttgatgtca ggcc 24

<210> 33

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<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 33
aggcaaagg ttcaactttt gaaacgtggc cagtgactgc caactcacag 50

<210> 34
<211> 3721
<212> DNA
<213> Homo Sapien

<400> 34
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<210> 35
<211> 888
<212> PRT
<213> Homo Sapien

<400> 35
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					20									
Pro	Pro	Pro	Leu	Ser	Val	Ala	Pro	Arg	Asp	Tyr	Leu	Asn	His	Tyr
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Pro	Val	Phe	Val	Gly	Ser	Gly	Pro	Gly	Arg	Leu	Thr	Pro	Ala	Glu
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					50									
Gly	Ala	Asp	Asp	Leu	Asn	Ile	Gln	Arg	Val	Leu	Arg	Val	Asn	Arg
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					65									
Thr	Leu	Phe	Ile	Gly	Asp	Arg	Asp	Asn	Leu	Tyr	Arg	Val	Glu	Leu
														90
					80									
Glu	Pro	Pro	Thr	Ser	Thr	Glu	Leu	Arg	Tyr	Gln	Arg	Lys	Leu	Thr
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					95									
Trp	Arg	Ser	Asn	Pro	Ser	Asp	Ile	Asn	Val	Cys	Arg	Met	Lys	Gly
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Lys	Gln	Glu	Gly	Glu	Cys	Arg	Asn	Phe	Val	Lys	Val	Leu	Leu	Leu
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Arg	Asp	Glu	Ser	Thr	Leu	Phe	Val	Cys	Gly	Ser	Asn	Ala	Phe	Asn
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Pro	Val	Cys	Ala	Asn	Tyr	Ser	Ile	Asp	Thr	Leu	Gln	Pro	Val	Gly
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					155									
Asp	Asn	Ile	Ser	Gly	Met	Ala	Arg	Cys	Pro	Tyr	Asp	Pro	Lys	His
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Val	Thr	Asp	Phe	Leu	Ala	Ile	Asp	Ala	Val	Ile	Tyr	Arg	Ser	Leu
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Gly	Asp	Arg	Pro	Thr	Leu	Arg	Thr	Val	Lys	His	Asp	Ser	Lys	Trp
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Phe	Lys	Glu	Pro	Tyr	Phe	Val	His	Ala	Val	Glu	Trp	Gly	Ser	His
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					245									
Glu	Lys	Val	Val	Val	Ser	Arg	Val	Ala	Arg	Val	Cys	Lys	Asn	Asp
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					260									
Val	Gly	Gly	Ser	Pro	Arg	Val	Leu	Glu	Lys	Gln	Trp	Thr	Ser	Phe
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					275									
Leu	Lys	Ala	Arg	Leu	Asn	Cys	Ser	Val	Pro	Gly	Asp	Ser	His	Phe
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					290									
Tyr	Phe	Asn	Val	Leu	Gln	Ala	Val	Thr	Gly	Val	Val	Ser	Leu	Gly

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Ile Pro Gly Ser Ala Val Cys Ala Phe Asp Leu Thr Gln Val Ala		
335	340	345
Ala Val Phe Glu Gly Arg Phe Arg Glu Gln Lys Ser Pro Glu Ser		
350	355	360
Ile Trp Thr Pro Val Pro Glu Asp Gln Val Pro Arg Pro Arg Pro		
365	370	375
Gly Cys Cys Ala Ala Pro Gly Met Gln Tyr Asn Ala Ser Ser Ala		
380	385	390
Leu Pro Asp Asp Ile Leu Asn Phe Val Lys Thr His Pro Leu Met		
395	400	405
Asp Glu Ala Val Pro Ser Leu Gly His Ala Pro Trp Ile Leu Arg		
410	415	420
Thr Leu Met Arg His Gln Leu Thr Arg Val Ala Val Asp Val Gly		
425	430	435
Ala Gly Pro Trp Gly Asn Gln Thr Val Val Phe Leu Gly Ser Glu		
440	445	450
Ala Gly Thr Val Leu Lys Phe Leu Val Arg Pro Asn Ala Ser Thr		
455	460	465
Ser Gly Thr Ser Gly Leu Ser Val Phe Leu Glu Glu Phe Glu Thr		
470	475	480
Tyr Arg Pro Asp Arg Cys Gly Arg Pro Gly Gly Glu Thr Gly		
485	490	495
Gln Arg Leu Leu Ser Leu Glu Leu Asp Ala Ala Ser Gly Gly Leu		
500	505	510
Leu Ala Ala Phe Pro Arg Cys Val Val Arg Val Pro Val Ala Arg		
515	520	525
Cys Gln Gln Tyr Ser Gly Cys Met Lys Asn Cys Ile Gly Ser Gln		
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Asp Pro Tyr Cys Gly Trp Ala Pro Asp Gly Ser Cys Ile Phe Leu		
545	550	555
Ser Pro Gly Thr Arg Ala Ala Phe Glu Gln Asp Val Ser Gly Ala		
560	565	570
Ser Thr Ser Gly Leu Gly Asp Cys Thr Gly Leu Leu Arg Ala Ser		
575	580	585
Leu Ser Glu Asp Arg Ala Gly Leu Val Ser Val Asn Leu Leu Val		
590	595	600

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Thr Ser Ser Val Ala Ala Phe Val Val Gly Ala Val Val Ser Gly
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 Phe Ser Val Gly Trp Phe Val Gly Leu Arg Glu Arg Arg Glu Leu
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 635 640 645
 Glu Ala Val Leu Ser Val Ser Arg Leu Gly Glu Arg Arg Ala Gln
 650 655 660
 Gly Pro Gly Gly Arg Gly Gly Gly Gly Ala Gly Val
 665 670 675
 Pro Pro Glu Ala Leu Leu Ala Pro Leu Met Gln Asn Gly Trp Ala
 680 685 690
 Lys Ala Thr Leu Leu Gln Gly Pro His Asp Leu Asp Ser Gly
 695 700 705
 Leu Leu Pro Thr Pro Glu Gln Thr Pro Leu Pro Gln Lys Arg Leu
 710 715 720
 Pro Thr Pro His Pro His Pro His Ala Leu Gly Pro Arg Ala Trp
 725 730 735
 Asp His Gly His Pro Leu Leu Pro Ala Ser Ala Ser Ser Ser Leu
 740 745 750
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 755 760 765
 Gly Glu Pro Thr Pro Asp Gly Arg Leu Tyr Ala Ala Arg Pro Gly
 770 775 780
 Arg Ala Ser His Gly Asp Phe Pro Leu Thr Pro His Ala Ser Pro
 785 790 795
 Asp Arg Arg Arg Val Val Ser Ala Pro Thr Gly Pro Leu Asp Pro
 800 805 810
 Ala Ser Ala Ala Asp Gly Leu Pro Arg Pro Trp Ser Pro Pro Pro
 815 820 825
 Thr Gly Ser Leu Arg Arg Pro Leu Gly Pro His Ala Pro Pro Ala
 830 835 840
 Ala Thr Leu Arg Arg Thr His Thr Phe Asn Ser Gly Glu Ala Arg
 845 850 855
 Pro Gly Asp Arg His Arg Gly Cys His Ala Arg Pro Gly Thr Asp
 860 865 870
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 Pro Val Pro

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<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 36
gaggacctac cggccggaca g 21

<210> 37
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 37
atacaccccg agtactgctg gcag 24

<210> 38
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 38
agacaggcga gcggctgctg agcttggagc tggacgcagc tt 42

<210> 39
<211> 2014
<212> DNA
<213> Homo Sapien

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gccgggcggc aaccttgca gtcgcgttgg ctgctgcgat cggccggcgg 200
gtccctgccc aaggctcggc tgcttctgtc cacctttac acttcttcat 250
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cggagaaagg cagctgagcc cggagaagag cggaaatatgg ggacccggc 400
taaaagcaga cgtcgccctt cccgccccgt atttctataat tcaggcagt 450

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<210> 40
 <211> 502
 <212> PRT
 <213> Homo Sapien

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				5															
Pro	Ala	Leu	Ala	Glu	Thr	Gly	Gly	Glu	Arg	Gln	Leu	Ser	Pro	Glu					
															30				
Lys	Ser	Glu	Ile	Trp	Gly	Pro	Gly	Leu	Lys	Ala	Asp	Val	Val	Leu					
									40						45				
Pro	Ala	Arg	Tyr	Phe	Tyr	Ile	Gln	Ala	Val	Asp	Thr	Ser	Gly	Asn					
									55						60				
Lys	Phe	Thr	Ser	Ser	Pro	Gly	Glu	Lys	Val	Phe	Gln	Val	Lys	Val					
									70						75				
Ser	Ala	Pro	Glu	Glu	Gln	Phe	Thr	Arg	Val	Gly	Val	Gln	Val	Leu					
									85						90				
Asp	Arg	Lys	Asp	Gly	Ser	Phe	Ile	Val	Arg	Tyr	Arg	Met	Tyr	Ala					
									100						105				
Ser	Tyr	Lys	Asn	Leu	Lys	Val	Glu	Ile	Lys	Phe	Gln	Gly	Gln	His					
									115						120				
Val	Ala	Lys	Ser	Pro	Tyr	Ile	Leu	Lys	Pro	Val	Tyr	His	Glu						
									130						135				
Asn	Cys	Asp	Cys	Pro	Leu	Gln	Asp	Ser	Ala	Ala	Trp	Leu	Arg	Glu					
									145						150				
Met	Asn	Cys	Pro	Glu	Thr	Ile	Ala	Gln	Ile	Gln	Arg	Asp	Leu	Ala					
									160						165				
His	Phe	Pro	Ala	Val	Asp	Pro	Glu	Lys	Ile	Ala	Val	Glu	Ile	Pro					
									175						180				
Lys	Arg	Phe	Gly	Gln	Arg	Gln	Ser	Leu	Cys	His	Tyr	Thr	Leu	Lys					
									190						195				
Asp	Asn	Lys	Val	Tyr	Ile	Lys	Thr	His	Gly	Glu	His	Val	Gly	Phe					
									205						210				
Arg	Ile	Phe	Met	Asp	Ala	Ile	Leu	Leu	Ser	Leu	Thr	Arg	Lys	Val					
									220						225				
Lys	Met	Pro	Asp	Val	Glu	Leu	Phe	Val	Asn	Leu	Gly	Asp	Trp	Pro					

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245	250		255
Trp Cys Gly Ser Thr Asp Ser Lys Asp Ile Val Met Pro Thr Tyr			
260	265		270
Asp Leu Thr Asp Ser Val Leu Glu Thr Met Gly Arg Val Ser Leu			
275	280		285
Asp Met Met Ser Val Gln Ala Asn Thr Gly Pro Pro Trp Glu Ser			
290	295		300
Lys Asn Ser Thr Ala Val Trp Arg Gly Arg Asp Ser Arg Lys Glu			
305	310		315
Arg Leu Glu Leu Val Lys Leu Ser Arg Lys His Pro Glu Leu Ile			
320	325		330
Asp Ala Ala Phe Thr Asn Phe Phe Phe Lys His Asp Glu Asn			
335	340		345
Leu Tyr Gly Pro Ile Val Lys His Ile Ser Phe Phe Asp Phe Phe			
350	355		360
Lys His Lys Tyr Gln Ile Asn Ile Asp Gly Thr Val Ala Ala Tyr			
365	370		375
Arg Leu Pro Tyr Leu Leu Val Gly Asp Ser Val Val Leu Lys Gln			
380	385		390
Asp Ser Ile Tyr Tyr Glu His Phe Tyr Asn Glu Leu Gln Pro Trp			
395	400		405
Lys His Tyr Ile Pro Val Lys Ser Asn Leu Ser Asp Leu Leu Glu			
410	415		420
Lys Leu Lys Trp Ala Lys Asp His Asp Glu Ala Lys Lys Ile			
425	430		435
Ala Lys Ala Gly Gln Glu Phe Ala Arg Asn Asn Leu Met Gly Asp			
440	445		450
Asp Ile Phe Cys Tyr Tyr Phe Lys Leu Phe Gln Glu Tyr Ala Asn			
455	460		465
Leu Gln Val Ser Glu Pro Gln Ile Arg Glu Gly Met Lys Arg Val			
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Glu Pro Gln Thr Glu Asp Asp Leu Phe Pro Cys Thr Cys His Arg			
485	490		495
Lys Lys Thr Lys Asp Glu Leu			
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<210> 41
<211> 26

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 41
gaagggtggaa attaaattcc aagggc 26

<210> 42
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 42
cgataagctg ctacagtgcc atcg 24

<210> 43
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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 43
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<210> 44
<211> 2395
<212> DNA
<213> Homo Sapien

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 <211> 310
 <212> PRT
 <213> Homo Sapien

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	Ala Pro Glu Pro Ser Ala Gly Ala Ser Ser Asn Trp Thr Thr Leu 50 55 60
	Pro Pro Pro Leu Phe Ser Lys Val Val Ile Val Leu Ile Asp Ala 65 70 75
	Leu Arg Asp Asp Phe Val Phe Gly Ser Lys Gly Val Lys Phe Met 80 85 90
	Pro Tyr Thr Thr Tyr Leu Val Glu Lys Gly Ala Ser His Ser Phe 95 100 105
	Val Ala Glu Ala Lys Pro Pro Thr Val Thr Met Pro Arg Ile Lys 110 115 120
	Ala Leu Met Thr Gly Ser Leu Pro Gly Phe Val Asp Val Ile Arg 125 130 135
	Asn Leu Asn Ser Pro Ala Leu Leu Glu Asp Ser Val Ile Arg Gln 140 145 150
	Ala Lys Ala Ala Gly Lys Arg Ile Val Phe Tyr Gly Asp Glu Thr 155 160 165
	Trp Val Lys Leu Phe Pro Lys His Phe Val Glu Tyr Asp Gly Thr 170 175 180

Thr	Ser	Phe	Phe	Val	Ser	Asp	Tyr	Thr	Glu	Val	Asp	Asn	Asn	Val
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200														
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215														
Gly	Pro	Asn	Ser	Pro	Leu	Ile	Gly	Gln	Lys	Leu	Ser	Glu	Met	Asp
									235					240
230														
Ser	Val	Leu	Met	Lys	Ile	His	Thr	Ser	Leu	Gln	Ser	Lys	Glu	Arg
									250					255
245														
Glu	Thr	Pro	Leu	Pro	Asn	Leu	Leu	Val	Leu	Cys	Gly	Asp	His	Gly
									265					270
260														
Met	Ser	Glu	Thr	Gly	Ser	His	Gly	Ala	Ser	Ser	Thr	Glu	Glu	Val
									280					285
275														
Asn	Thr	Pro	Leu	Ile	Leu	Ile	Ser	Ser	Ala	Phe	Glu	Arg	Lys	Pro
									295					300
290														
Gly	Asp	Ile	Arg	His	Pro	Lys	His	Val	Gln					
									310					
305														

<210> 46
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 46
cgggactttc gctacctgtt gc 22

<210> 47
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 47
catcatattc cacaatgc tttggg 26

<210> 48
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 48

ccttcgggga ttcttccgg ctcccgttcg ttcctctg 38
 <210> 49
 <211> 918
 <212> DNA
 <213> Homo Sapien

<400> 49
 agccaggcag cacatcacag cgggaggagc tgtcccaggt ggcggcagtc 50
 agcaatggca atgggggtcc ccagagtcat tctgtctgc ctctttgggg 100
 ctgcgtctg cctgacaggg tcccaagccc tgcaagtcta cagcttgag 150
 cacacctact ttggccctt tgacctcagg gccatgaagc tgcccgacat 200
 ctcctgtctt catgagtgtt ttgaggctat cctgtctctg gacaccgggt 250
 atcgcgcc ggtgaccctg gtgcggaaagg gctgctggac cgggcctcct 300
 gccccccaga cgcaatcgaa cccggacgcg ctgcggccag actactcggt 350
 ggtgcgcggc tgcacaactg acaaattgcaa cgcccacctc atgactcatg 400
 acggccctccc caacctgagc caagcacccg acccgccgac gctcagcggc 450
 gccgagtgtt acgcctgtat cgggggtccac caggatgact gctatcg 500
 caggtcccgaa cgagtccagt gtcaccagga ccagaccgcc tgcttccagg 550
 gcagtggcag aatgacagtt ggcaatttct cagtcctgtt gtacatcaga 600
 acctgccacc ggccttcctg caccaccgag ggaccacca gcccctggac 650
 agccatcgac ctccagggtt cctgctgtga ggggtacctc tgcaacagga 700
 aatccatgac ccagcccttc accagtgttt cagccaccac ccctccccga 750
 gcactacagg tcctggccct gtcctccca gtcttcctgc tggggggtt 800
 ctcagcatag accggccctc caggatgtt gggacagggc tcacacacct 850
 catttttgtt gcttcagccc ctatcacata gtcactgga aaatgtatgtt 900
 aaagtaagaa ttgcaaaa 918

<210> 50
 <211> 251
 <212> PRT
 <213> Homo Sapien

<400> 50
 Met Ala Met Gly Val Pro Arg Val Ile Leu Leu Cys Leu Phe Gly
 1 5 10 15
 Ala Ala Leu Cys Leu Thr Gly Ser Gln Ala Leu Gln Cys Tyr Ser
 20 25 30

2
22
222
2222
22222
222222
2222222
22222222
222222222
2222222222
22222222222

Phe Glu His Thr Tyr Phe Gly Pro Phe Asp Leu Arg Ala Met Lys
35 40 45
Leu Pro Ser Ile Ser Cys Pro His Glu Cys Phe Glu Ala Ile Leu
50 55 60
Ser Leu Asp Thr Gly Tyr Arg Ala Pro Val Thr Leu Val Arg Lys
65 70 75
Gly Cys Trp Thr Gly Pro Pro Ala Gly Gln Thr Gln Ser Asn Pro
80 85 90
Asp Ala Leu Pro Pro Asp Tyr Ser Val Val Arg Gly Cys Thr Thr
95 100 105
Asp Lys Cys Asn Ala His Leu Met Thr His Asp Ala Leu Pro Asn
110 115 120
Leu Ser Gln Ala Pro Asp Pro Pro Thr Leu Ser Gly Ala Glu Cys
125 130 135
Tyr Ala Cys Ile Gly Val His Gln Asp Asp Cys Ala Ile Gly Arg
140 145 150
Ser Arg Arg Val Gln Cys His Gln Asp Gln Thr Ala Cys Phe Gln
155 160 165
Gly Ser Gly Arg Met Thr Val Gly Asn Phe Ser Val Pro Val Tyr
170 175 180
Ile Arg Thr Cys His Arg Pro Ser Cys Thr Thr Glu Gly Thr Thr
185 190 195
Ser Pro Trp Thr Ala Ile Asp Leu Gln Gly Ser Cys Cys Glu Gly
200 205 210
Tyr Leu Cys Asn Arg Lys Ser Met Thr Gln Pro Phe Thr Ser Ala
215 220 225
Ser Ala Thr Thr Pro Pro Arg Ala Leu Gln Val Leu Ala Leu Leu
230 235 240
Leu Pro Val Leu Leu Val Gly Leu Ser Ala
245 250

<210> 51
<211> 3288
<212> DNA
<213> Homo Sapien

<400> 51
cccacgcgtc cgggacagat gaactaaaa gagaagctt agctgccaaa 50
gattggaaa gggaaaggac aaaaaagacc cctgggctac acggcgtagg 100
tgcagggtt cctactgctg ttctttatg ctggagctg tggctgtaac 150
caactaggaa ataacgtatg cagcagctat ggctgtcaga gagtttgct 200

tcccaagaca aaggcaagtc ctgtttctt ttctttttg gggagtgtcc 250
ttggcaggtt ctgggttgg acgttattcg gtgactgagg aaacagagaa 300
aggatcctt gtggtaatc tggcaaagga tctggacta gcagaggggg 350
agctggctgc aagggaacc agggtggtt ccgatgataa caaacaatac 400
ctgctcctgg attcacatac cggaaatttg ctcacaaatg agaaaactgga 450
ccgagagaag ctgtgtggcc ctaaagagcc ctgtatgctg tatttccaaa 500
tttaatgga tgatccctt cagattacc gggctgagct gagagtcaagg 550
gatataaatg atcacgcgcc agtatttcag gacaaagaaaa cagtcttaaa 600
aatatcagaa aatacagctg aaggcacgc atttagacta gaaagagcac 650
aggatccaga tggaggactt aacggtatcc aaaactacac gatcagcccc 700
aactctttt tccatattaa cattagtggc ggtgatgaag gcatgatata 750
tccagagcta gtgtggaca aagcactgga tcgggaggag cagggagagc 800
tcagcttaac cctcacagcg ctggatggtg ggtctccatc caggtctggg 850
acctctactg tacgcatcgt tgtcttgac gtcaatgaca atgccccaca 900
gtttgccag gctctgtatg agacccaggc tccagaaaac agccccattg 950
gttccttat tgttaaggta tggcagaag atgtagactc tggagtcaac 1000
gcggaaagtat cctattcatt ttttgcatt tcagaaaata ttcgaacgac 1050
ctttcaaatac aatcctttt ctggggaaat ctttctcaga gaattgcttg 1100
attatgagtt agtaaattct tacaaaataa atatacaggc aatggacggt 1150
ggaggcctt ctgcaagatg tagggttta gtggaaagtat tggacaccaa 1200
tgacaatccc cctgaactga tcgtatcatc attttccaaac tctgttgctg 1250
agaattctcc tgagacgccc ctggctgtt ttaagattaa tgacagagac 1300
tctggagaaa atggaaagat ggttgctac attcaagaga atctgccatt 1350
cctactaaaa cttctgtgg agaattttta catcctaatt acagaaggcg 1400
cgctggacag agagatcaga gccgagtaca acatcaactat caccgtcact 1450
gacttgggga cacccaggct gaaaaccgag cacaacataa cggtcctgg 1500
ctccgacgtc aatgacaacg ccccccctt cacccaaacc tcctacaccc 1550
tgttcgtccg cgagaacaac agccccgccc tgcacatcgg cagcgtcagc 1600
gccacagaca gagactcggg caccaacgccc caggtcacct actcgctgct 1650

cottagttta tatacttatt attttatctt taagcatgct acttttactt 3150
ggccaatatt ttcttatgtt aacttttgct gatgtataaa acagactatg 3200
ccttataatt gaaataaaaat tataatctgc ctgaaaatga ataaaaataa 3250
aacatttga aatgtgaaaa aaaaaaaaaa aaaaaaaaa 3288

<210> 52
<211> 800
<212> PRT
<213> Homo Sapien

<400> 52
Met Ala Val Arg Glu Leu Cys Phe Pro Arg Gln Arg Gln Val Leu
1 5 10 15
Phe Leu Phe Leu Phe Trp Gly Val Ser Leu Ala Gly Ser Gly Phe
20 25 30
Gly Arg Tyr Ser Val Thr Glu Glu Thr Glu Lys Gly Ser Phe Val
35 40 45
Val Asn Leu Ala Lys Asp Leu Gly Leu Ala Glu Gly Glu Leu Ala
50 55 60
Ala Arg Gly Thr Arg Val Val Ser Asp Asp Asn Lys Gln Tyr Leu
65 70 75
Leu Leu Asp Ser His Thr Gly Asn Leu Leu Thr Asn Glu Lys Leu
80 85 90
Asp Arg Glu Lys Leu Cys Gly Pro Lys Glu Pro Cys Met Leu Tyr
95 100 105
Phe Gln Ile Leu Met Asp Asp Pro Phe Gln Ile Tyr Arg Ala Glu
110 115 120
Leu Arg Val Arg Asp Ile Asn Asp His Ala Pro Val Phe Gln Asp
125 130 135
Lys Glu Thr Val Leu Lys Ile Ser Glu Asn Thr Ala Glu Gly Thr
140 145 150
Ala Phe Arg Leu Glu Arg Ala Gln Asp Pro Asp Gly Gly Leu Asn
155 160 165
Gly Ile Gln Asn Tyr Thr Ile Ser Pro Asn Ser Phe Phe His Ile
170 175 180
Asn Ile Ser Gly Gly Asp Glu Gly Met Ile Tyr Pro Glu Leu Val
185 190 195
Leu Asp Lys Ala Leu Asp Arg Glu Glu Gln Gly Glu Leu Ser Leu
200 205 210
Thr Leu Thr Ala Leu Asp Gly Gly Ser Pro Ser Arg Ser Gly Thr
215 220 225

Ser Thr Val Arg Ile Val Val Leu Asp Val Asn Asn Ala Pro
 230 235 240
 Gln Phe Ala Gln Ala Leu Tyr Glu Thr Gln Ala Pro Glu Asn Ser
 245 250 255
 Pro Ile Gly Phe Leu Ile Val Lys Val Trp Ala Glu Asp Val Asp
 260 265 270
 Ser Gly Val Asn Ala Glu Val Ser Tyr Ser Phe Phe Asp Ala Ser
 275 280 285
 Glu Asn Ile Arg Thr Thr Phe Gln Ile Asn Pro Phe Ser Gly Glu
 290 295 300
 Ile Phe Leu Arg Glu Leu Leu Asp Tyr Glu Leu Val Asn Ser Tyr
 305 310 315
 Lys Ile Asn Ile Gln Ala Met Asp Gly Gly Gly Leu Ser Ala Arg
 320 325 330
 Cys Arg Val Leu Val Glu Val Leu Asp Thr Asn Asp Asn Pro Pro
 335 340 345
 Glu Leu Ile Val Ser Ser Phe Ser Asn Ser Val Ala Glu Asn Ser
 350 355 360
 Pro Glu Thr Pro Leu Ala Val Phe Lys Ile Asn Asp Arg Asp Ser
 365 370 375
 Gly Glu Asn Gly Lys Met Val Cys Tyr Ile Gln Glu Asn Leu Pro
 380 385 390
 Phe Leu Leu Lys Pro Ser Val Glu Asn Phe Tyr Ile Leu Ile Thr
 395 400 405
 Glu Gly Ala Leu Asp Arg Glu Ile Arg Ala Glu Tyr Asn Ile Thr
 410 415 420
 Ile Thr Val Thr Asp Leu Gly Thr Pro Arg Leu Lys Thr Glu His
 425 430 435
 Asn Ile Thr Val Leu Val Ser Asp Val Asn Asp Asn Ala Pro Ala
 440 445 450
 Phe Thr Gln Thr Ser Tyr Thr Leu Phe Val Arg Glu Asn Asn Ser
 455 460 465
 Pro Ala Leu His Ile Gly Ser Val Ser Ala Thr Asp Arg Asp Ser
 470 475 480
 Gly Thr Asn Ala Gln Val Thr Tyr Ser Leu Leu Pro Pro Gln Asp
 485 490 495
 Pro His Leu Pro Leu Ala Ser Leu Val Ser Ile Asn Ala Asp Asn
 500 505 510
 Gly His Leu Phe Ala Leu Arg Ser Leu Asp Tyr Glu Ala Leu Gln

515	520	525
Ala Phe Glu Phe Arg Val Gly Ala Thr Asp Arg Gly Ser Pro Ala		
530	535	540
Leu Ser Arg Glu Ala Leu Val Arg Val Leu Val Leu Asp Ala Asn		
545	550	555
Asp Asn Ser Pro Phe Val Leu Tyr Pro Leu Gln Asn Gly Ser Ala		
560	565	570
Pro Cys Thr Glu Leu Val Pro Arg Ala Ala Glu Pro Gly Tyr Leu		
575	580	585
Val Thr Lys Val Val Ala Val Asp Gly Asp Ser Gly Gln Asn Ala		
590	595	600
Trp Leu Ser Tyr Gln Leu Leu Lys Ala Thr Glu Pro Gly Leu Phe		
605	610	615
Gly Val Trp Ala His Asn Gly Glu Val Arg Thr Ala Arg Leu Leu		
620	625	630
Ser Glu Arg Asp Ala Ala Lys His Arg Leu Val Val Leu Val Lys		
635	640	645
Asp Asn Gly Glu Pro Pro Arg Ser Ala Thr Ala Thr Leu His Leu		
650	655	660
Leu Leu Val Asp Gly Phe Ser Gln Pro Tyr Leu Pro Leu Pro Glu		
665	670	675
Ala Ala Pro Ala Gln Ala Gln Ala Glu Ala Asp Leu Leu Thr Val		
680	685	690
Tyr Leu Val Val Ala Leu Ala Ser Val Ser Ser Leu Phe Leu Leu		
695	700	705
Ser Val Leu Leu Phe Val Ala Val Arg Leu Cys Arg Arg Ser Arg		
710	715	720
Ala Ala Ser Val Gly Arg Cys Ser Val Pro Glu Gly Pro Phe Pro		
725	730	735
Gly His Leu Val Asp Val Arg Gly Ala Glu Thr Leu Ser Gln Ser		
740	745	750
Tyr Gln Tyr Glu Val Cys Leu Thr Gly Gly Pro Gly Thr Ser Glu		
755	760	765
Phe Lys Phe Leu Lys Pro Val Ile Ser Asp Ile Gln Ala Gln Gly		
770	775	780
Pro Gly Arg Lys Gly Glu Glu Asn Ser Thr Phe Arg Asn Ser Phe		
785	790	795
Gly Phe Asn Ile Gln		
800		

<210> 53
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 53
ctggggagtg tccttggcag gttc 24

<210> 54
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 54
cagcatacag ggcttttag ggcacac 27

<210> 55
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 55
cggtgactga ggaaacagag aaaggatcct ttgtggtcaa tctggc 46

<210> 56
<211> 2242
<212> DNA
<213> Homo Sapien

<220>
<221> unsure
<222> 2181
<223> unknown base

<400> 56
aatgaatac ctccgaagcc gctttgttct ccagatgtga atagctccac 50
tataccagcc tcgtcttcct tccggggac aacgtgggtc agggcacaga 100
gagatattta atgtcaccct cttggggctt tcatggact ccctctgcc 150
cattttttgg aggttggaa agttgctaga ggcttcagaa ctccagccta 200
atggatccca aactcgggag aatggctgcg tccctgctgg ctgtgctgct 250
gctgctgctg gagcgcggca tggtctcctc accctccccg cccccggcgc 300
tgttagagaa agtcttccag tacattgacc tccatcagga tgaatttgtg 350

cagacgctga aggagtgggt ggccatcgag agcgactctg tccagcctgt 400
gcctcgcttc agacaagagc tcttcagaat gatggccgtg gctgcggaca 450
cgctgcagcg cctgggggcc cgtgtggcct cggtggacat gggtcctcag 500
cagctgcccg atggtcagag tcttccaata cctcccgta tcctggccga 550
actggggagc gatcccacga aaggcaccgt gtgcttctac ggccacttgg 600
acgtgcagcc tgctgaccgg ggcgatgggt ggctcacgga cccctatgtg 650
ctgacggagg tagacggaa actttatgga cgaggagcga ccgacaacaa 700
aggccctgtc ttggcttggta tcaatgtgt gagcgccttc agagccctgg 750
agcaagatct tcctgtgaat atcaaattca tcattgaggg gatggaagag 800
gctggctctg ttgcccctggta ggaacttgtg gaaaaagaaa aggaccgatt 850
cttctctgggt gtggactaca ttgtaatttc agataacctg tggatcagcc 900
aaaggaagcc agcaatcaact tatgaaaccc ggggaaacag ctacttcatg 950
gtggaggtga aatgcagaga ccaggatttt cactcagggaa cctttgggtgg 1000
catccttcat gaaccaatgg ctgatctgggt tgctcttctc ggtagcctgg 1050
tagactcgtc tggtcataatc ctggccctg gaatctatga tgaagtgggtt 1100
cctcttacag aagagggaaat aaatacatac aaagccatcc atctagaccc 1150
agaagaatac cgaaatagca gccgggttga gaaatttctg ttcgatacta 1200
aggaggagat tctaattgcac ctctggaggt acccatctt ttcttattcat 1250
gggatcgagg gcgcgtttga tgagcctggta actaaaacag tcatacctgg 1300
cccgagttata ggaaaatttt caatccgtct agtccctcac atgaatgtgt 1350
ctgcgggtggaa aaaacaggtg acacgacatc ttgaagatgt gttctccaaa 1400
agaaatagtt ccaacaagat ggttgttcc atgactctag gactacaccc 1450
gtggattgca aatattgatg acacccagta tctcgacgca aaaagagcga 1500
tcagaacagt gtttggaaaca gaaccagata tgatccggta tggatccacc 1550
attccaatttgc ccaaaatgtt ccaggagatc gtccacaaga gcgtgggtgt 1600
aattccgctg ggagctgttg atgatggaga acattcgcag aatgagaaaa 1650
tcaacaggtg gaactacata gagggaaacca aattatttgc tgccttttc 1700
tttagagatgg cccagctcca ttaatcacaa gaaccttcta gtctgatctg 1750
atccactgac agattcacct cccccacatc cctagacagg gatggaatgt 1800

aaatatccag agaatttggg tctagtatag tacatttcc cttccattta 1850
aaatgtcttg ggatatctgg atcagtaata aaatatttca aaggcacaga 1900
tgttggaaat ggttaaggt cccccactgc acaccccttca caagtcata 1950
ctgcttgcag caacttgatt tcccccaagtc ctgtgcaata gcccccaggat 2000
tggattcctt ccaacccctt agcatatctc caaccccttca atttgattgg 2050
cataatcact ccgggttgct ttcttaggtcc tcaagtgctc gtgacacata 2100
atcattccat ccaatgatcg cctttgctt accactctt ccttttatct 2150
tattaataaa aatgttggtc tccaccactg nctccaaaa aaaaaaaaaa 2200
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 2242

<210> 57
<211> 507
<212> PRT
<213> Homo Sapien

<400> 57
Met Asp Pro Lys Leu Gly Arg Met Ala Ala Ser Leu Leu Ala Val
1 5 10 15
Leu Leu Leu Leu Leu Glu Arg Gly Met Phe Ser Ser Pro Ser Pro
20 25 30
Pro Pro Ala Leu Leu Glu Lys Val Phe Gln Tyr Ile Asp Leu His
35 40 45
Gln Asp Glu Phe Val Gln Thr Leu Lys Glu Trp Val Ala Ile Glu
50 55 60
Ser Asp Ser Val Gln Pro Val Pro Arg Phe Arg Gln Glu Leu Phe
65 70 75
Arg Met Met Ala Val Ala Ala Asp Thr Leu Gln Arg Leu Gly Ala
80 85 90
Arg Val Ala Ser Val Asp Met Gly Pro Gln Gln Leu Pro Asp Gly
95 100 105
Gln Ser Leu Pro Ile Pro Pro Val Ile Leu Ala Glu Leu Gly Ser
110 115 120
Asp Pro Thr Lys Gly Thr Val Cys Phe Tyr Gly His Leu Asp Val
125 130 135
Gln Pro Ala Asp Arg Gly Asp Gly Trp Leu Thr Asp Pro Tyr Val
140 145 150
Leu Thr Glu Val Asp Gly Lys Leu Tyr Gly Arg Gly Ala Thr Asp
155 160 165
Asn Lys Gly Pro Val Leu Ala Trp Ile Asn Ala Val Ser Ala Phe

9
23
33
43
53
63
73
83
93
P
A
R
E
S
T

170	175	180
Arg Ala Leu Glu Gln Asp Leu Pro Val Asn Ile Lys Phe Ile Ile		
185	190	195
Glu Gly Met Glu Glu Ala Gly Ser Val Ala Leu Glu Glu Leu Val		
200	205	210
Glu Lys Glu Lys Asp Arg Phe Phe Ser Gly Val Asp Tyr Ile Val		
215	220	225
Ile Ser Asp Asn Leu Trp Ile Ser Gln Arg Lys Pro Ala Ile Thr		
230	235	240
Tyr Gly Thr Arg Gly Asn Ser Tyr Phe Met Val Glu Val Lys Cys		
245	250	255
Arg Asp Gln Asp Phe His Ser Gly Thr Phe Gly Gly Ile Leu His		
260	265	270
Glu Pro Met Ala Asp Leu Val Ala Leu Leu Gly Ser Leu Val Asp		
275	280	285
Ser Ser Gly His Ile Leu Val Pro Gly Ile Tyr Asp Glu Val Val		
290	295	300
Pro Leu Thr Glu Glu Glu Ile Asn Thr Tyr Lys Ala Ile His Leu		
305	310	315
Asp Leu Glu Glu Tyr Arg Asn Ser Ser Arg Val Glu Lys Phe Leu		
320	325	330
Phe Asp Thr Lys Glu Glu Ile Leu Met His Leu Trp Arg Tyr Pro		
335	340	345
Ser Leu Ser Ile His Gly Ile Glu Gly Ala Phe Asp Glu Pro Gly		
350	355	360
Thr Lys Thr Val Ile Pro Gly Arg Val Ile Gly Lys Phe Ser Ile		
365	370	375
Arg Leu Val Pro His Met Asn Val Ser Ala Val Glu Lys Gln Val		
380	385	390
Thr Arg His Leu Glu Asp Val Phe Ser Lys Arg Asn Ser Ser Asn		
395	400	405
Lys Met Val Val Ser Met Thr Leu Gly Leu His Pro Trp Ile Ala		
410	415	420
Asn Ile Asp Asp Thr Gln Tyr Leu Ala Ala Lys Arg Ala Ile Arg		
425	430	435
Thr Val Phe Gly Thr Glu Pro Asp Met Ile Arg Asp Gly Ser Thr		
440	445	450
Ile Pro Ile Ala Lys Met Phe Gln Glu Ile Val His Lys Ser Val		
455	460	465

Val Leu Ile Pro Leu Gly Ala Val Asp Asp Gly Glu His Ser Gln
470 475 480
Asn Glu Lys Ile Asn Arg Trp Asn Tyr Ile Glu Gly Thr Lys Leu
485 490 495
Phe Ala Ala Phe Phe Leu Glu Met Ala Gln Leu His
500 505

<210> 58
<211> 1470
<212> DNA
<213> Homo Sapien

<400> 58
ctcggctgga tttaaggttg ccgctagccg cctggaaatt taagggaccc 50
acactacctt cccgaagttt aaggcaagcg gtgattgttt gtagacggcg 100
ctttgtcatg ggacctgtgc gggtggaaat attgcttttc cttttttgg 150
ccgtgcacga ggcttggct gggatgtga aggaggagga cgatgacaca 200
gaacgcgttgc ccagcaaatg cgaagtgtgt aagctgctga gcacagagct 250
acaggcggaa ctgagtcgca ccggcgtgatc tcgagagggtg ctggagctgg 300
ggcaggtgct ggatacaggc aagaggaaga gacacgtgcc ttacagcggtt 350
tcagagacaa ggcttggaaaga ggccttagag aatttatgtg agcggatcct 400
ggactatagt gttcacgctg agcgcaaggg ctcactgaga tatgccaagg 450
gtcagagtca gaccatggca acactgaaag gcctagtgcga gaagggggtg 500
aaggtggatc tggggatccc tctggagctt tgggatgagc ccagcgtgga 550
ggtcacatac ctcaagaagc agtgtgagac catgttggag gagtttgaag 600
acattgtggg agactggtac ttccaccatc aggagcagcc cctacaaaat 650
tttctctgtg aaggtcatgt gctccagct gctgaaactg catgtctaca 700
ggaaacttgg actggaaagg agatcacaga tggggaaagag aaaacagaag 750
gggaggaaga gcaggaggag gaggaggaaag aggaggaaga ggaaggggga 800
gacaagatga ccaagacagg aagccacccc aaacttgacc gagaagatct 850
ttgacccttg ccttgagcc cccaggaggga gaagggatca tggagageccc 900
tctaaagcct gcactctccc tgctccacag ctttcagggt gtgttatga 950
gtgactccac ccaagcttgc agctgttctc tccccatctaa cctcaggcaa 1000
gatcctggtg aaacagcatg acatggcttc tgggtggag ggtgggggtg 1050
gaggtcctgc tcctagagat gaactctatc cagcccccta attggcaggt 1100

gatgtgctg acagtactga aagcttcctt cttaactga tccccccccc 1150
acccaaaagt cagcagtggc actggagctg tgggctttgg ggaagtcact 1200
tagtcctta aggtctgttt ttagaccctt ccaaggaaga ggccagaacg 1250
gacattctct gcgatctata tacattgcct gtatccagga ggctacacac 1300
cagcaaaccg tgaaggagaa tggacactg ggtcatggcc tggagttgct 1350
gataattnag gtggataga tacttggtct acttaagctc aatgtAACCC 1400
agagcccacc atatagtttt ataggtgctc aactttctat atcgctatta 1450
aacttttttc ttttttcta 1470

<210> 59
<211> 248
<212> PRT
<213> Homo Sapien

<400> 59
Met Gly Pro Val Arg Leu Gly Ile Leu Leu Phe Leu Phe Leu Ala
1 5 10 15
Val His Glu Ala Trp Ala Gly Met Leu Lys Glu Glu Asp Asp Asp
20 25 30
Thr Glu Arg Leu Pro Ser Lys Cys Glu Val Cys Lys Leu Leu Ser
35 40 45
Thr Glu Leu Gln Ala Glu Leu Ser Arg Thr Gly Arg Ser Arg Glu
50 55 60
Val Leu Glu Leu Gly Gln Val Leu Asp Thr Gly Lys Arg Lys Arg
65 70 75
His Val Pro Tyr Ser Val Ser Glu Thr Arg Leu Glu Glu Ala Leu
80 85 90
Glu Asn Leu Cys Glu Arg Ile Leu Asp Tyr Ser Val His Ala Glu
95 100 105
Arg Lys Gly Ser Leu Arg Tyr Ala Lys Gly Gln Ser Gln Thr Met
110 115 120
Ala Thr Leu Lys Gly Leu Val Gln Lys Gly Val Lys Val Asp Leu
125 130 135
Gly Ile Pro Leu Glu Leu Trp Asp Glu Pro Ser Val Glu Val Thr
140 145 150
Tyr Leu Lys Lys Gln Cys Glu Thr Met Leu Glu Glu Phe Glu Asp
155 160 165
Ile Val Gly Asp Trp Tyr Phe His His Gln Glu Gln Pro Leu Gln
170 175 180

Asn	Phe	Leu	Cys	Glu	Gly	His	Val	Leu	Pro	Ala	Ala	Glu	Thr	Ala
														195
														.
185								190						
Cys	Leu	Gln	Glu	Thr	Trp	Thr	Gly	Lys	Glu	Ile	Thr	Asp	Gly	Glu
														210
								205						
200														
Glu	Lys	Thr	Glu	Gly	Glu	Glu	Gln	Glu						
														225
								215						
215									220					
Glu	Glu	Glu	Gly	Gly	Asp	Lys	Met	Thr	Lys	Thr	Gly	Ser	His	
														240
								230						
230									235					
Pro	Lys	Leu	Asp	Arg	Glu	Asp	Leu							
245														

<210> 60
<211> 890
<212> DNA
<213> Homo Sapien

<400> 60
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ctgcctgtcc ttctccctgt gcttaaccag aggtgccat gggttggaca 100
atgaggctgg tcacagcagc actgttactg ggtctcatga tggtggtcac 150
tggagacgag gatgagaaca gcccgtgtgc ccatgaggcc ctcttggacg 200
aggacacctt ctttgcag ggccttgaag ttttctaccc agagttgggg 250
aacattggct gcaagggttgt tcctgattgt aacaactaca gacagaagat 300
caccttcctgg atggagccga tagtcaagtt cccgggggccc gtggacggcg 350
caacctatat cctggtgatg gtggatccag atgcccctag cagagcagaa 400
cccagacaga gattctggag acattggctg gtaacagata tcaagggcgc 450
cgacctgaag aaagggaaaga ttcagggcca ggagttatca gcctaccagg 500
ctccctcccc accggcacac agtggcttc atcgctacca gttcttgtc 550
tatcttcagg aaggaaaaatgg catctctctc cttcccaagg aaaacaaaac 600
tcgaggctct tggaaaatgg acagattct gaaccgcttc cacctggcg 650
aacctgaagc aagcacccag ttcatgaccc agaactacca ggactcacca 700
accctccagg ctccccagagg aagggccagc gagcccaagc acaaaaccag 750
gcagagatag ctgcctgcta gatagccggc tttgccatcc gggcatgtgg 800
ccacactgct caccaccgac gatgtggta tggaaaccccc tctggataca 850
gaaccccttc tttccaaat taaaaaaaaaa aatcatcaaa 890

<210> 61

<211> 223
<212> PRT
<213> Homo Sapien

<400> 61
Met Gly Trp Thr Met Arg Leu Val Thr Ala Ala Leu Leu Leu Gly
1 5 10 15
Leu Met Met Val Val Thr Gly Asp Glu Asp Glu Asn Ser Pro Cys
20 25 30
Ala His Glu Ala Leu Leu Asp Glu Asp Thr Leu Phe Cys Gln Gly
35 40 45
Leu Glu Val Phe Tyr Pro Glu Leu Gly Asn Ile Gly Cys Lys Val
50 55 60
Val Pro Asp Cys Asn Asn Tyr Arg Gln Lys Ile Thr Ser Trp Met
65 70 75
Glu Pro Ile Val Lys Phe Pro Gly Ala Val Asp Gly Ala Thr Tyr
80 85 90
Ile Leu Val Met Val Asp Pro Asp Ala Pro Ser Arg Ala Glu Pro
95 100 105
Arg Gln Arg Phe Trp Arg His Trp Leu Val Thr Asp Ile Lys Gly
110 115 120
Ala Asp Leu Lys Lys Gly Lys Ile Gln Gly Gln Glu Leu Ser Ala
125 130 135
Tyr Gln Ala Pro Ser Pro Ala His Ser Gly Phe His Arg Tyr
140 145 150
Gln Phe Phe Val Tyr Leu Gln Glu Gly Lys Val Ile Ser Leu Leu
155 160 165
Pro Lys Glu Asn Lys Thr Arg Gly Ser Trp Lys Met Asp Arg Phe
170 175 180
Leu Asn Arg Phe His Leu Gly Glu Pro Glu Ala Ser Thr Gln Phe
185 190 195
Met Thr Gln Asn Tyr Gln Asp Ser Pro Thr Leu Gln Ala Pro Arg
200 205 210
Gly Arg Ala Ser Glu Pro Lys His Lys Thr Arg Gln Arg
215 220

<210> 62
<211> 1321
<212> DNA
<213> Homo Sapien

<400> 62
gtcgaccac gcgtccgaag ctgctggagc cacgatttcag tccccctggac 50

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2
2
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0
0
0

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aggcactcca ggagacgctg atggtgagg aaggccgtc tatcaatcaa 150
tcactgttgc tgttatcaca tgcaagtatc cagaggctct tgagcaaggc 200
agaggggatc ccatttattt gggaatccag aatccagaaa tgtgtttgt 250
ttgtgagaag gttggagaac agcccacatt gcagctaaaa gagcagaaga 300
tcatggatct gtatggccaa cccgagcccg tgaaaccctt cctttctac 350
cgtgccaaga ctggtaggac ctccaccctt gagtctgtgg cttcccgga 400
ctggttcatt gcctcctcca agagagacca gccatcatt ctgacttcag 450
aacttggaa gtcatacaac actgccttg aattaaatat aaatgactga 500
actcagccctt gaggtggcag cttggtctt gtcttaagt ttctggttcc 550
caatgtgttt tcgtctacat tttcttagtg tcatttcac gctggtgctg 600
agacaggagc aaggctgctg ttatcatctc attttataat gaagaagaag 650
caattacttc atagcaactg aagaacagga tgtggcctca gaagcaggag 700
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aggcatctgc atgagtgact ttaagactca aagaccaaac actgagctt 800
cttctagggg tgggtatgaa gatgcttcag agctcatgcg cgttaccac 850
gatggcatga cttagcacaga gctgatctct gttctgttt tgctttattc 900
cctcttggga tgatatcatc cagtcttat atgttgccaa tatacctcat 950
tgtgtgtaat agaaccttct tagcattaag accttgtaaa caaaaataat 1000
tcttgggtg ggtatgaaga tgcttcagag ctcatgcgcg ttacccacga 1050
tggcatgact agcacagagc tgatctctgt ttctgttttgc ctatttccc 1100
tcttggatg atatcatcca gtcttataat gttgccaata tacctcattt 1150
tgtgtatag aaccttctta gcattaagac cttgtaaaca aaaataattc 1200
ttgtgttaag ttaaatcatt tttgtctaa ttgtatgtg taatcttaaa 1250
gttaaataaa ctttgttat ttatataata ataaagctaa aactgatata 1300
aaataaagaa agagtaact g 1321

<210> 63
<211> 134
<212> PRT
<213> Homo Sapien

<400> 63

Met Arg Gly Thr Pro Gly Asp Ala Asp Gly Gly Gly Arg Ala Val
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 Tyr Gln Ser Ile Thr Val Ala Val Ile Thr Cys Lys Tyr Pro Glu
 20 25 30
 Ala Leu Glu Gln Gly Arg Gly Asp Pro Ile Tyr Leu Gly Ile Gln
 35 40 45
 Asn Pro Glu Met Cys Leu Tyr Cys Glu Lys Val Gly Glu Gln Pro
 50 55 60
 Thr Leu Gln Leu Lys Glu Gln Lys Ile Met Asp Leu Tyr Gly Gln
 65 70 75
 Pro Glu Pro Val Lys Pro Phe Leu Phe Tyr Arg Ala Lys Thr Gly
 80 85 90
 Arg Thr Ser Thr Leu Glu Ser Val Ala Phe Pro Asp Trp Phe Ile
 95 100 105
 Ala Ser Ser Lys Arg Asp Gln Pro Ile Ile Leu Thr Ser Glu Leu
 110 115 120
 Gly Lys Ser Tyr Asn Thr Ala Phe Glu Leu Asn Ile Asn Asp
 125 130

<210> 64
 <211> 999
 <212> DNA
 <213> Homo Sapien

<400> 64
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 gtgctgctgc tgctcctggc gggagccccc gccgcgcggc ccactcccc 100
 gacctgctac tcccgcatgc gggccctgag ccaggagatc acccgcgact 150
 tcaaacctcct gcaggtctcg gagccctcgg agccatgtgt gagatacctg 200
 cccaggctgt acctggacat acacaattac tgtgtgctgg acaagctgctg 250
 ggactttgtg gcctcgccccc cgtgttgaa agtggcccaag gtagattcct 300
 tgaaggacaa agcacggaag ctgtacacca tcatgaactc gttctgcagg 350
 agagatttgg tattcctgtt ggatgactgc aatgccttgg aatacccaat 400
 cccagtgact acggcctgc cagatcgtca ggcgtaaggg aactgagacc 450
 agagaaaagaa cccaaagagaa ctaaagttat gtcagctacc cagacttaat 500
 gggccagagc catgaccctc acaggtcttg tggtagttgt atctgaaact 550
 gttatgtatc tctctacctt ctggaaaaca gggctggat tcctacccag 600
 gaacccctt tgagcataga gtttagcaacc atgcttctca ttcccttgac 650

tcatgtcttg ccaggatgg tagatacaca gcatgttgat ttggtaacta 700
aaaagaagaa aaggactaac aagcttcaact tttatgaaca actatttga 750
gaacatgcac aatagtatgt ttttattact gtttaatgg agtaatggta 800
cttttattct ttcttgatag aaacctgctt acatttaacc aagcttctat 850
tatgcctttt tctaacadag actttcttca ctgtcttca tttaaaaaga 900
aattaatgct cttaagatat atatttacg tagtgctgac aggacccact 950
cttcattga aaggtgatga aaatcaaata aagaatctct tcacatgga 999

<210> 65
<211> 136
<212> PRT
<213> Homo Sapien

<400> 65
Met Arg Thr Pro Gly Pro Leu Pro Val Leu Leu Leu Leu Ala
1 5 10 15
Gly Ala Pro Ala Ala Arg Pro Thr Pro Pro Thr Cys Tyr Ser Arg
20 25 30
Met Arg Ala Leu Ser Gln Glu Ile Thr Arg Asp Phe Asn Leu Leu
35 40 45
Gln Val Ser Glu Pro Ser Glu Pro Cys Val Arg Tyr Leu Pro Arg
50 55 60
Leu Tyr Leu Asp Ile His Asn Tyr Cys Val Leu Asp Lys Leu Arg
65 70 75
Asp Phe Val Ala Ser Pro Pro Cys Trp Lys Val Ala Gln Val Asp
80 85 90
Ser Leu Lys Asp Lys Ala Arg Lys Leu Tyr Thr Ile Met Asn Ser
95 100 105
Phe Cys Arg Arg Asp Leu Val Phe Leu Leu Asp Asp Cys Asn Ala
110 115 120
Leu Glu Tyr Pro Ile Pro Val Thr Thr Val Leu Pro Asp Arg Gln
125 130 135

Arg

<210> 66
<211> 1893
<212> DNA
<213> Homo Sapien

<400> 66
gtctcccggt cacaggaact tcagcaccca cagggcggac agcgctcccc 50

D
D
D
D
D
D
D
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D
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D
D
D
D

tctacctgga gacttgactc ccgcgcgccc caaccctgt tatcccttga 100
ccgtcgagtg tcagagatcc tgcagccgcc cagtccggc ccctctcccg 150
ccccacaccc accctcctgg ctcttcctgt ttttactcct cctttcatt 200
cataacaaaaa gctacagctc caggagccca gcgcgggct gtgacccaag 250
ccgagcgtgg aagaatgggg ttccctcgaaa ccggcacttg gattctggtg 300
ttagtgtcc cgattcaagc ttccccaaa cctggaggaa gccaaagacaa 350
atctctacat aatagagaat taagtgcaga aagaccttg aatgaacaga 400
ttgctgaagc agaagaagac aagattaaaa aaacatatcc tccagaaaaac 450
aagccaggc agagcaacta ttctttgtt gataacttga acctgctaaa 500
ggcaataaca gaaaaggaaa aaattgagaa agaaagacaa tctataagaa 550
gctccccact tgataataag ttgaatgtgg aagatgttga ttcaaccaag 600
aatcgaaaaac tgatcgatga ttatgactt actaagagtg gattggatca 650
taaatttcaa gatgatccag atggcttca tcaactagac gggactcctt 700
taaccgctga agacattgtc cataaaatcg ctgccaggat ttatgaagaa 750
aatgacagag ccgtgtttga caagattgtt tctaaactac ttaatctcg 800
ccttattcaca gaaagccaag cacatacact ggaagatgaa gtagcagagg 850
ttttacaaaaa attaatctca aaggaagcca acaattatga ggaggatccc 900
aataagcca caagctggac tgagaatcag gctggaaaaa taccagagaa 950
agtgactcca atggcagcaa ttcaagatgg tcttgctaag ggagaaaaacg 1000
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tttctatgcg ctactgaaaa gtattgattc agaaaaagaa gcaaaagaga 1150
aagaaaacact gattactatc atgaaaacac tgattgactt tgtgaagatg 1200
atggtaaat atggaacaat atctccagaa gaaggtgtt cctaccttga 1250
aaacttggat gaaatgattg ctcttcagac caaaaacaag ctagaaaaaa 1300
atgctactga caatataagc aagctttcc cagcaccatc agagaagagt 1350
catgaagaaa cagacagtac caaggaagaa gcagctaaga tggaaaagga 1400
atatggaagc ttgaaggatt ccacaaaaaga tgataactcc aacccaggag 1450
gaaagacaga tgaacccaaa gaaaaaacag aagcctattt ggaagccatc 1500

agaaaaaaata ttgaatggtt gaagaaaacat gacaaaaagg gaaataaaga 1550
agattatgac ctttcaaaga tgagagactt catcaataaa caagctgatg 1600
cttatgtgga gaaaggcatc cttgacaagg aagaagccga ggccatcaag 1650
cgcatttata gcagcctgta aaaatggcaa aagatccagg agtcttcaa 1700
ctgtttcaga aaacataata tagcttaaaa cacttcta at tctgtgatta 1750
aaatttttg acccaagggt tattagaaag tgctgaattt acagtagtta 1800
accttttaca agtggtaaaa acatagctt cttcccgtaa aaactatctg 1850
aaagtaaaatgtatgtaag ctgaaaaaaaaaaa aaa 1893

<210> 67
<211> 468
<212> PRT
<213> Homo Sapien

<400> 67
Met Gly Phe Leu Gly Thr Gly Thr Trp Ile Leu Val Leu Val Leu
1 5 10 15
Pro Ile Gln Ala Phe Pro Lys Pro Gly Gly Ser Gln Asp Lys Ser
20 25 30
Leu His Asn Arg Glu Leu Ser Ala Glu Arg Pro Leu Asn Glu Gln
35 40 45
Ile Ala Glu Ala Glu Glu Asp Lys Ile Lys Lys Thr Tyr Pro Pro
50 55 60
Glu Asn Lys Pro Gly Gln Ser Asn Tyr Ser Phe Val Asp Asn Leu
65 70 75
Asn Leu Leu Lys Ala Ile Thr Glu Lys Glu Lys Ile Glu Lys Glu
80 85 90
Arg Gln Ser Ile Arg Ser Ser Pro Leu Asp Asn Lys Leu Asn Val
95 100 105
Glu Asp Val Asp Ser Thr Lys Asn Arg Lys Leu Ile Asp Asp Tyr
110 115 120
Asp Ser Thr Lys Ser Gly Leu Asp His Lys Phe Gln Asp Asp Pro
125 130 135
Asp Gly Leu His Gln Leu Asp Gly Thr Pro Leu Thr Ala Glu Asp
140 145 150
Ile Val His Lys Ile Ala Ala Arg Ile Tyr Glu Glu Asn Asp Arg
155 160 165
Ala Val Phe Asp Lys Ile Val Ser Lys Leu Leu Asn Leu Gly Leu
170 175 180

Q
D
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D
P

Ile Thr Glu Ser Gln Ala His Thr Leu Glu Asp Glu Val Ala Glu
185 190 195
Val Leu Gln Lys Leu Ile Ser Lys Glu Ala Asn Asn Tyr Glu Glu
200 205 210
Asp Pro Asn Lys Pro Thr Ser Trp Thr Glu Asn Gln Ala Gly Lys
215 220 225
Ile Pro Glu Lys Val Thr Pro Met Ala Ala Ile Gln Asp Gly Leu
230 235 240
Ala Lys Gly Glu Asn Asp Glu Thr Val Ser Asn Thr Leu Thr Leu
245 250 255
Thr Asn Gly Leu Glu Arg Arg Thr Lys Thr Tyr Ser Glu Asp Asn
260 265 270
Phe Glu Glu Leu Gln Tyr Phe Pro Asn Phe Tyr Ala Leu Leu Lys
275 280 285
Ser Ile Asp Ser Glu Lys Glu Ala Lys Glu Lys Glu Thr Leu Ile
290 295 300
Thr Ile Met Lys Thr Leu Ile Asp Phe Val Lys Met Met Val Lys
305 310 315
Tyr Gly Thr Ile Ser Pro Glu Glu Gly Val Ser Tyr Leu Glu Asn
320 325 330
Leu Asp Glu Met Ile Ala Leu Gln Thr Lys Asn Lys Leu Glu Lys
335 340 345
Asn Ala Thr Asp Asn Ile Ser Lys Leu Phe Pro Ala Pro Ser Glu
350 355 360
Lys Ser His Glu Glu Thr Asp Ser Thr Lys Glu Glu Ala Ala Lys
365 370 375
Met Glu Lys Glu Tyr Gly Ser Leu Lys Asp Ser Thr Lys Asp Asp
380 385 390
Asn Ser Asn Pro Gly Gly Lys Thr Asp Glu Pro Lys Gly Lys Thr
395 400 405
Glu Ala Tyr Leu Glu Ala Ile Arg Lys Asn Ile Glu Trp Leu Lys
410 415 420
Lys His Asp Lys Lys Gly Asn Lys Glu Asp Tyr Asp Leu Ser Lys
425 430 435
Met Arg Asp Phe Ile Asn Lys Gln Ala Asp Ala Tyr Val Glu Lys
440 445 450
Gly Ile Leu Asp Lys Glu Glu Ala Glu Ala Ile Lys Arg Ile Tyr
455 460 465
Ser Ser Leu

<210> 68
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 68
cgtcacagga acttcagcac cc 22

<210> 69 .
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 69
gtcttggctt cctccaggtt tgg 23

0 <210> 70
1 <211> 38
2 <212> DNA
3 <213> Artificial Sequence

4 <220>
5 <223> Synthetic oligonucleotide probe

6 <400> 70
7 ggacagcgct cccctctacc tggagacttg actccgc 38

8 <210> 71
9 <211> 2379
A <212> DNA
B <213> Homo Sapien

C <400> 71
D gttgctccgg cggcgctcg ggagggagcc agcagcctag ggcctaggcc 50
E cgggccacca tggcgctgcc tccaggccca ggcgcctcc ggcacacact 100
F gctgctcctg ccagcccttc tgagctcagg ttggggggag ttggagccac 150
G aaatagatgg tcagacctgg gctgagcggg cacttcggga gaatgaacgc 200
H cacgccttca cctgccgggt ggcagggggg cctggcaccc ccagattggc 250
I ctggtatctg gatggacagc tgcaggaggc cagcacctca agactgctga 300
J gcgtggagg ggaggccttc tctggaggca ccagcacctt cactgtcact 350
K gccccatcggg cccagcatga gctcaactgc tctctgcagg accccagaag 400
L tggccgatca gccaacgcct ctgtcatcct taatgtgcaa ttcaagccag 450

agattgcccc agtcggcgcc aagtaccagg aagctcaggg cccaggcctc 500
ctgggttgtcc tgtttgcctt ggtgcgtgcc aacccggccgg ccaatgtcac 550
ctggatcgac caggatgggc cagtgactgt caacacctct gacttcctgg 600
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cagctccgca gcctggcaca caacctctcg gtggtggcca ccaatgacgt 700
gggtgtcacc agtgcgtcgc ttccagcccc aggccccctcc cgccacccat 750
ctctgatatac aagtgactcc aacaacctaa aactcaacaa cgtgcgcctg 800
ccacgggaga acatgtccct cccgtccaac cttcagctca atgacacctac 850
tccagattcc agagcagtga aaccagcaga ccggcagatg gctcagaaca 900
acagccggcc agagcttctg gacccggagc ccggcggcct cctcaccagc 950
caaggtttca tccgcctccc agtgctggc tatactatac gagtgtccag 1000
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tctcttgccc tctggacacc ctcccattcc tccaaggcat cctctaccta 1100
gcttaggtcac caacgtgaag aagttatgcc actgccactt ttgcttgccc 1150
tcctggctgg ggtgcctcc atgtcatgca cgtgatgcat ttcactggc 1200
tgtaacccgc aggggcacag gtatcttgg caaggctacc agttggacgt 1250
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ttccagaggg agctcttgg ccaggggtgt tcagatgtca tccagcatcc 1350
aagtgtggca tggcctgctg tatacccac cccagctactc cacagcacct 1400
tgtacagtag gcatgggggc gtgcctgtgt gggggacagg gagggccctg 1450
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attnaggacc ctgctagctg tgcagaaccc aattgcctt tgcacagaaa 1550
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gaattctagg ttacacgttg gaccttctct actacttcac tggcactag 1700
acttttctat tggcctgtgc catcgccag tattagcaca agttagggag 1750
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tctgggattc actgtgagtg tcctgagctc tcggggttga tggttttct 1950
ctcagcatgt ctcctccacc acgggacccc agccctgacc aacccatggt 2000
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gattggaaat taatatagta cagaatatat ttttcccttg ttgagatctt 2200
ctttttaat gttttcatg ttactgccta gggcggtgct gagcacacag 2250
caagtttaat aaacttgact gaattcattt aaaaaaaaaa aaaaaaaaaa 2300
aaaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2350
aaaaaaaaaaa aaaaaaaaaa aaaaaaaaa 2379

<210> 72
<211> 322
<212> PRT
<213> Homo Sapien

<400> 72
Met Ala Leu Pro Pro Gly Pro Ala Ala Leu Arg His Thr Leu Leu
1 5 10 15
Leu Leu Pro Ala Leu Leu Ser Ser Gly Trp Gly Glu Leu Glu Pro
20 25 30
Gln Ile Asp Gly Gln Thr Trp Ala Glu Arg Ala Leu Arg Glu Asn
35 40 45
Glu Arg His Ala Phe Thr Cys Arg Val Ala Gly Gly Pro Gly Thr
50 55 60
Pro Arg Leu Ala Trp Tyr Leu Asp Gly Gln Leu Gln Glu Ala Ser
65 70 75
Thr Ser Arg Leu Leu Ser Val Gly Gly Glu Ala Phe Ser Gly Gly
80 85 90
Thr Ser Thr Phe Thr Val Thr Ala His Arg Ala Gln His Glu Leu
95 100 105
Asn Cys Ser Leu Gln Asp Pro Arg Ser Gly Arg Ser Ala Asn Ala
110 115 120
Ser Val Ile Leu Asn Val Gln Phe Lys Pro Glu Ile Ala Gln Val
125 130 135
Gly Ala Lys Tyr Gln Glu Ala Gln Gly Pro Gly Leu Leu Val Val
140 145 150
Leu Phe Ala Leu Val Arg Ala Asn Pro Pro Ala Asn Val Thr Trp
155 160 165

Ile Asp Gln Asp Gly Pro Val Thr Val Asn Thr Ser Asp Phe Leu
 170 175 180
 Val Leu Asp Ala Gln Asn Tyr Pro Trp Leu Thr Asn His Thr Val
 185 190 195
 Gln Leu Gln Leu Arg Ser Leu Ala His Asn Leu Ser Val Val Ala
 200 205 210
 Thr Asn Asp Val Gly Val Thr Ser Ala Ser Leu Pro Ala Pro Gly
 215 220 225
 Pro Ser Arg His Pro Ser Leu Ile Ser Ser Asp Ser Asn Asn Leu
 230 235 240
 Lys Leu Asn Asn Val Arg Leu Pro Arg Glu Asn Met Ser Leu Pro
 245 250 255
 Ser Asn Leu Gln Leu Asn Asp Leu Thr Pro Asp Ser Arg Ala Val
 260 265 270
 Lys Pro Ala Asp Arg Gln Met Ala Gln Asn Asn Ser Arg Pro Glu
 275 280 285
 Leu Leu Asp Pro Glu Pro Gly Gly Leu Leu Thr Ser Gln Gly Phe
 290 295 300
 Ile Arg Leu Pro Val Leu Gly Tyr Ile Tyr Arg Val Ser Ser Val
 305 310 315
 Ser Ser Asp Glu Ile Trp Leu
 320

<210> 73
 <211> 843
 <212> DNA
 <213> Homo Sapien

<400> 73
 cggggacgga agcggccctt gggcccgagg ggctggagcc gggccggggc 50
 gatgtggagc gcgggccgcg gcggggctgc ctggccggtg ctgttgggc 100
 tgctgctggc gctgttagtg ccgggcggtg gtgccgc当地 gaccgggtcg 150
 gagtcgtga cctgcgggtc ggtgctgaag ctgctcaata cgccaccaccc 200
 cgtgcggctg cactcgcacg acatcaaata cggatccggc agcggccacg 250
 aatcggtgac cggcgttagag gctcggtacg acgccaatag ctactggcg 300
 atccgcggcg gctcggtacg cgggtgccc cgggtgcgtg 350
 cgggcaggcg gtgaggctca cgcattgtct tacggcaag aacctgcaca 400
 cgcaccactt cccgtcgccg ctgtccaaaca accaggaggt gagtgcctt 450
 gggaaagacg gcgaggcgac cgacctggac ctatggacag tgcgtgcgtc 500

tggacagcac tgggagcgtg aggctgctgt gcgcttccag catgtggca 550
cctctgtgtt cctgtcagtc acgggtgagc agtatggaag ccccatccgt 600
ggcagcatg aggtccacgg catgcccagt gccaacacgc acaatacgtg 650
gaaggccatg gaaggcatct tcataagcc tagtgtggag ccctctgcag 700
gtcacgatga actctgagtg tgtggatgga tgggtggatg gagggtgcca 750
ggtggggcgt ctgcagggcc actcttggca gagactttgg gttttaggg 800
gtcctcaagt gcctttgtga ttaaagaatg ttggtctatg aaa 843

<210> 74
<211> 221
<212> PRT
<213> Homo Sapien

<400> 74
Met Trp Ser Ala Gly Arg Gly Ala Ala Trp Pro Val Leu Leu
1 5 10 15
Gly Leu Leu Leu Ala Leu Leu Val Pro Gly Gly Ala Ala Lys
20 25 30
Thr Gly Ala Glu Leu Val Thr Cys Gly Ser Val Leu Lys Leu
35 40 45
Asn Thr His His Arg Val Arg Leu His Ser His Asp Ile Lys Tyr
50 55 60
Gly Ser Gly Ser Gly Gln Gln Ser Val Thr Gly Val Glu Ala Ser
65 70 75
Asp Asp Ala Asn Ser Tyr Trp Arg Ile Arg Gly Gly Ser Glu Gly
80 85 90
Gly Cys Pro Arg Gly Ser Pro Val Arg Cys Gly Gln Ala Val Arg
95 100 105
Leu Thr His Val Leu Thr Gly Lys Asn Leu His Thr His His Phe
110 115 120
Pro Ser Pro Leu Ser Asn Asn Gln Glu Val Ser Ala Phe Gly Glu
125 130 135
Asp Gly Glu Gly Asp Asp Leu Asp Leu Trp Thr Val Arg Cys Ser
140 145 150
Gly Gln His Trp Glu Arg Glu Ala Ala Val Arg Phe Gln His Val
155 160 165
Gly Thr Ser Val Phe Leu Ser Val Thr Gly Glu Gln Tyr Gly Ser
170 175 180
Pro Ile Arg Gly Gln His Glu Val His Gly Met Pro Ser Ala Asn
185 190 195

Thr His Asn Thr Trp Lys Ala Met Glu Gly Ile Phe Ile Lys Pro
200 205 210

Ser Val Glu Pro Ser Ala Gly His Asp Glu Leu
215 220

<210> 75
<211> 1049
<212> DNA
<213> Homo Sapien

<400> 75
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ttggatgaga tgaacacttt taacaagaga acaggactct atataaatcg 150
ctgtgggctc accacctcta aggaggagca ctgactgaag acagaaaaat 200
tgatgaactg aagaagacat ggtccattat gccttacaaa cttacacagt 250
gctttggaa ttccaaagta ctcagtggag agaggtgtt caggagccgt 300
agagccagat cgtcatcatg tctgcattgt ggctgctgct gggcctcctt 350
gccctgatgg acttgtctga aagcagcaac tggggatgct atggaaacat 400
ccaaaggctg gacacccctg gagcatcttgc tgggattgga agacgtcact 450
gcctgaacta ctgtggagtt cgtgcttctg aaaggctggc tgaaatagac 500
atgccatacc tcctgaaata tcaacccatg atgcaaacca ttggccaaaa 550
gtactgcattt gatcctgccg tcatcgctgg tgtcttgcc aggaagtctc 600
ccggtgacaa aattctggtc aacatggcg ataggacttag catggtgac 650
gaccctggct ctcaagctcc cacatcctgg attagttagt ctcaggttcc 700
ccagacaact gaagttctga ctactagaat caaagaaatc cagaggaggt 750
ttccaacctg gaccctgac cagtagtgcg gaggtggact ctgtgcctac 800
agtgggggtg ctggctatgt ccgaaggcgc caggacctga gctgtgactt 850
ctgcaatgtatgt gtccttgac gagccaaatgt cctcaagaga catggcttct 900
aacatctcag atgaaacccca agaccatgtatgt cacatatgca gcctcaaatg 950
ttacacagat aaaactagcc aagggcacct gtaactggga atctgagttt 1000
gacctaaaag tcattaaaat aacatgaatc ccattaaaaa aaaaaaaaaa 1049

<210> 76
<211> 194
<212> PRT
<213> Homo Sapien

<400> 76
 Met Ser Ala Leu Trp Leu Leu Leu Gly Leu Leu Ala Leu Met Asp
 1 5 10 15
 Leu Ser Glu Ser Ser Asn Trp Gly Cys Tyr Gly Asn Ile Gln Ser
 20 25 30
 Leu Asp Thr Pro Gly Ala Ser Cys Gly Ile Gly Arg Arg His Gly
 35 40 45
 Leu Asn Tyr Cys Gly Val Arg Ala Ser Glu Arg Leu Ala Glu Ile
 50 55 60
 Asp Met Pro Tyr Leu Leu Lys Tyr Gln Pro Met Met Gln Thr Ile
 65 70 75
 Gly Gln Lys Tyr Cys Met Asp Pro Ala Val Ile Ala Gly Val Leu
 80 85 90
 Ser Arg Lys Ser Pro Gly Asp Lys Ile Leu Val Asn Met Gly Asp
 95 100 105
 Arg Thr Ser Met Val Gln Asp Pro Gly Ser Gln Ala Pro Thr Ser
 110 115 120
 Trp Ile Ser Glu Ser Gln Val Ser Gln Thr Thr Glu Val Leu Thr
 125 130 135
 Thr Arg Ile Lys Glu Ile Gln Arg Arg Phe Pro Thr Trp Thr Pro
 140 145 150
 Asp Gln Tyr Leu Arg Gly Gly Leu Cys Ala Tyr Ser Gly Gly Ala
 155 160 165
 Gly Tyr Val Arg Ser Ser Gln Asp Leu Ser Cys Asp Phe Cys Asn
 170 175 180
 Asp Val Leu Ala Arg Ala Lys Tyr Leu Lys Arg His Gly Phe
 185 190

<210> 77
 <211> 899
 <212> DNA
 <213> Homo Sapien

<400> 77
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 gtctcagctg acattcgctg tcactcctgc tacaagggtcc ctgtgctggg 150
 ctgtgtggac cggcagtctt gcccctggaa gccaggacag caatgcctga 200
 caacacatgc ataccttggt aagatgtggg ttttctccaa tctgcgttgt 250
 ggcacaccag aagagccctg tcaggaggcc ttcaacccaa ccaaccgcaa 300

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gcgcaggacc ccggcccaact ccagccctgg gccttgcctt ccttacacctc 400
ttggctggcc ttggcctctg gctgctgcac tgagactcat tccattggct 450
gcccttcctc ccacctgcct tggcctgagc ctctctccct gtgtctctgt 500
atccccctggc tttacagaat cgtctctccc tagctcccat ttcttaatt 550
aaacactgtt ccgagtggtc tcctcatcca tccttccac ctcacacccct 600
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ccagtgaagg ctcccacaag gacctgatga cctcactgta cagagctgac 800
tccccaaacc caggctccca tatgtacccc atccccata ctcacctctt 850
tccatttga gtaataaaatg tctgagtctg gaaaaaaaaaaaaaaa 899

<210> 78
<211> 125
<212> PRT
<213> Homo Sapien

<400> 78
Met Lys Ala Leu Met Leu Leu Thr Leu Ser Val Leu Leu Cys Trp
1 5 10 15
Val Ser Ala Asp Ile Arg Cys His Ser Cys Tyr Lys Val Pro Val
20 25 30
Leu Gly Cys Val Asp Arg Gln Ser Cys Arg Leu Glu Pro Gly Gln
35 40 45
Gln Cys Leu Thr Thr His Ala Tyr Leu Gly Lys Met Trp Val Phe
50 55 60
Ser Asn Leu Arg Cys Gly Thr Pro Glu Pro Cys Gln Glu Ala
65 70 75
Phe Asn Gln Thr Asn Arg Lys Leu Gly Leu Thr Tyr Asn Thr Thr
80 85 90
Cys Cys Asn Lys Asp Asn Cys Asn Ser Ala Gly Pro Arg Pro Thr
95 100 105
Pro Ala Leu Gly Leu Val Phe Leu Thr Ser Leu Ala Gly Leu Gly
110 115 120
Leu Trp Leu Leu His
125

<210> 79

<211> 1977
<212> DNA
<213> Homo Sapien

<400> 79
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tagctgcgca gcgtcgcgcg cgctaccgca cccaggttcg gcccgttaggc 150
gtctggcagc ccggcgccat cttcatcgag cgccatggcc gcagcctgcg 200
ggccgggagc ggccgggtac tgcttgctcc tcggcttgca tttgtttctg 250
ctgaccgcgg gcccgtccct gggctggAAC gaccctgaca gaatgttgct 300
gcgggatgtaa aagctctta ccctccacta tgaccgctat accacccc 350
tgtgattctt ataccccaa agtcatacag tgtcagaaca aaggctggaa 400
tgggtatgtat gtacagtggg aatgtaaagac ggacttagat attgcataca 450
aatttggaaa aactgtggtg agctgtgaag gctatgagtc ctctgaagac 500
cagtatgtac taagagggttc ttgtggcttg gagtataatt tagattatac 550
agaacttggc ctgcagaaac tgaaggagtc tggaaagcag cacggcttg 600
cctctttctc tgattattat tataagtggc cctcggcgga ttccctgtaac 650
atgagtggtat tgattaccat cgtggtaactc cttgggatcg cctttgttgt 700
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cctcctcccc caggcttaa gtctgagttc acaggaccac agaatactgg 850
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tcagacacga aaaccagaac tgcatcagga tatggtggtt ccaggagacg 1150
ataaaagtaga aagttggagt caaacactgg atgcagaaat tttggatttt 1200
tcatcacttt ctcttagaa aaaaagtact acctgttaac aattggaaa 1250
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ttactgtgga atgctaaaaa tacattaatt tctaaaacct gtgatgcct 1500
aagaagcatt aagaatgaag gtgttgtact aatagaaact aagtacagaa 1550
aatttcagtt ttagtggtt gtagctgatg agttattacc tcataagagac 1600
tataatattc tatttggat tatattattt gatgttgct gttcttcaaa 1650
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taataacaaa agcatgcagt tctctgtgaa atctcaaata ttgttgtaat 1950
agtctgttcc aatctaaaaa agaatca 1977

<210> 80
<211> 339
<212> PRT
<213> Homo Sapien

<400> 80

Met Ala Ala Ala Cys Gly Pro Gly Ala Ala Gly Tyr Cys Leu Leu
1 5 10 15
Leu Gly Leu His Leu Phe Leu Leu Thr Ala Gly Pro Ala Leu Gly
20 25 30
Trp Asn Asp Pro Asp Arg Met Leu Leu Arg Asp Val Lys Ala Leu
35 40 45
Thr Leu His Tyr Asp Arg Tyr Thr Thr Ser Arg Arg Leu Asp Pro
50 55 60
Ile Pro Gln Leu Lys Cys Val Gly Gly Thr Ala Gly Cys Asp Ser
65 70 75
Tyr Thr Pro Lys Val Ile Gln Cys Gln Asn Lys Gly Trp Asp Gly
80 85 90
Tyr Asp Val Gln Trp Glu Cys Lys Thr Asp Leu Asp Ile Ala Tyr
95 100 105
Lys Phe Gly Lys Thr Val Val Ser Cys Glu Gly Tyr Glu Ser Ser
110 115 120
Glu Asp Gln Tyr Val Leu Arg Gly Ser Cys Gly Leu Glu Tyr Asn
125 130 135

Leu Asp Tyr Thr Glu Leu Gly Leu Gln Lys Leu Lys Glu Ser Gly
140 145 150

Lys Gln His Gly Phe Ala Ser Phe Ser Asp Tyr Tyr Tyr Lys Trp
155 160 165

Ser Ser Ala Asp Ser Cys Asn Met Ser Gly Leu Ile Thr Ile Val
170 175 180

Val Leu Leu Gly Ile Ala Phe Val Val Tyr Lys Leu Phe Leu Ser
185 190 195

Asp Gly Gln Tyr Ser Pro Pro Pro Tyr Ser Glu Tyr Pro Pro Phe
200 205 210

Ser His Arg Tyr Gln Arg Phe Thr Asn Ser Ala Gly Pro Pro Pro
215 220 225

Pro Gly Phe Lys Ser Glu Phe Thr Gly Pro Gln Asn Thr Gly His
230 235 240

Gly Ala Thr Ser Gly Phe Gly Ser Ala Phe Thr Gly Gln Gln Gly
245 250 255

Tyr Glu Asn Ser Gly Pro Gly Phe Trp Thr Gly Leu Gly Thr Gly
260 265 270

Gly Ile Leu Gly Tyr Leu Phe Gly Ser Asn Arg Ala Ala Thr Pro
275 280 285

Phe Ser Asp Ser Trp Tyr Tyr Pro Ser Tyr Pro Pro Ser Tyr Pro
290 295 300

Gly Thr Trp Asn Arg Ala Tyr Ser Pro Leu His Gly Gly Ser Gly
305 310 315

Ser Tyr Ser Val Cys Ser Asn Ser Asp Thr Lys Thr Arg Thr Ala
320 325 330

Ser Gly Tyr Gly Gly Thr Arg Arg Arg
335